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September 22, 2011

Ms. Ingrid H. Hopkins
Water Protection Division (3WP42)
US EPA – Region III
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**RE: Benning Road Generating Station – NPDES Permit No. DC 0000094
Metal Excursions – Outfall 013Q; pH Excursion – Outfall 101**

Dear Ms. Hopkins,

This letter is a follow-up to the September 21, 2011 telephone notification, made on behalf of Pepco Energy Services, Inc. by Ms. Heather Brinkerhoff, EHS Manager, to report daily maximum copper, iron and zinc excursions from a grab storm water sample taken on August 25, 2011 from Outfall 013 as well as a pH exceedance from a grab storm water sample taken on September 5, 2011 from Outfall 101/Manhole K.

On September 20, Ms. Brinkerhoff received the laboratory analysis indicating daily maximum concentrations for copper, iron and zinc were exceeded. Ms. Brinkerhoff made the required telephone notification per NPDES permit condition VI.6 to the USEPA.

On September 6, Ms. Brinkerhoff received the pH reading from MACTEC, the environmental consultant contracted to collect storm events from Outfall 101, indicating pH was below the permit limitations. An initial notification was not made because Outfall 101 was thought to be a 'monitoring only' outfall. It was later determined, during completion of the quarterly DMR, that the low Outfall 101 pH reading should have been reported. It was reported with the metals excursions on September 21st.

Lab and field results indicated the following:

Analyte	Units	Permit Limit Daily Max	Results
Copper	ug/L	13.44	68.0
Iron	mg/L	1.0	1.5
Zinc	ug/L	117.18	190.0
pH	SU	6-8.5	5.5

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Investigation of the metals excursions included a review of historical metal concentrations to obtain baseline storm water sample data. Specifically, storm water sample data gathered during the previous NPDES permit period for the Benning Road Generating Station, indicates that the August 25, 2011 values are comparative to historical values, i.e. typical metal concentrations found in storm water samples dating back several years are similar to those seen in recent analysis.

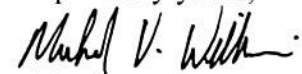
On July 19, 2010, the facility submitted to EPA a TMDL Implementation Plan, as required by NPDES permit condition VII.E. The TMDL Plan provided information on past, current, and planned activities at the facility to meet the required load reductions for the Anacostia River TMDLs for metals. EPA approved the plan and the facility has begun the implementation process, including taking baseline storm water samples from various locations throughout the facility to locate potential hot spots and increased metal infiltration to storm water. These storm event results will then dictate which locations to use those best management practices listed in the plan to reduce the TMDL and consequently resolve any future metal excursions.

Investigation of the low pH indicated the natural rainfall pH is the possible root cause. Specifically, the sampling event occurring on September 5th was the first storm water sample taken from this outfall since the modifications were made for representative sampling - there was no comingled water (river water infiltration) combined with the samples, just pure rainwater. The pH of natural rainfall is generally about 5.1, as indicated by MACTEC. And more specifically, in the Washington DC area, the average pH's range from between 4.2 and 4.4 due to the effects of acid rain. Therefore, since there is no other water infiltrating the sample, the pH would be low. Also, since the rainfall runs over concrete surfaces, it is likely to pick up a bit of buffering capacity from the lime in the concrete, hence, the 5.5 reading. FYI, on September 5th, there was approximately 1.84 inches of rain in a thirteen hour period.

As a follow-up to this excursion and to confirm this theory, we plan to do some verification sampling at the next rainfall event. Specifically, there will be three samples taken: one from a pan collecting direct rainfall, one from rainfall after it runs over the parking lot, and a third directly from Outfall 101/Manhole K (where water is infiltrated with river water). We can then compare the readings and provide a better explanation of the low pH.

Please contact me at (703) 253-1787 or by electronic mail at mwilliams@pepcoenergy.com if you need additional information.

Respectfully yours,



Michael V. Williams
Power Plant Asset Manager
Pepco Energy Services, Inc.

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